

Small-scale maps

- School atlases
- World atlases
- Scientific atlases and maps
- Scale range from 1 : 1 000 000 to 1: 200 000 000

Hölzel is mainly engaged in the field of educational publications (esp. school atlases)



Process of names placement

- 1st decision: What names shall be placed on the map?
- 2nd decision: Which form of a name shall be used?
- 3rd decision: Which names can be placed on the map?
- 4th decision: Where shall a name be placed?
- 5th decision: How shall a name be placed?

First decision

What names shall be placed on the map?

*general orientation =
elements of the base
map*

topic

scale

Topographic, physical

detail

thematic

overview

General orientation

- Important rivers
- Important towns



Names of topographical elements

rivers, lakes, oceans

mountains, mountain ranges

cities and towns

COUNTRIES

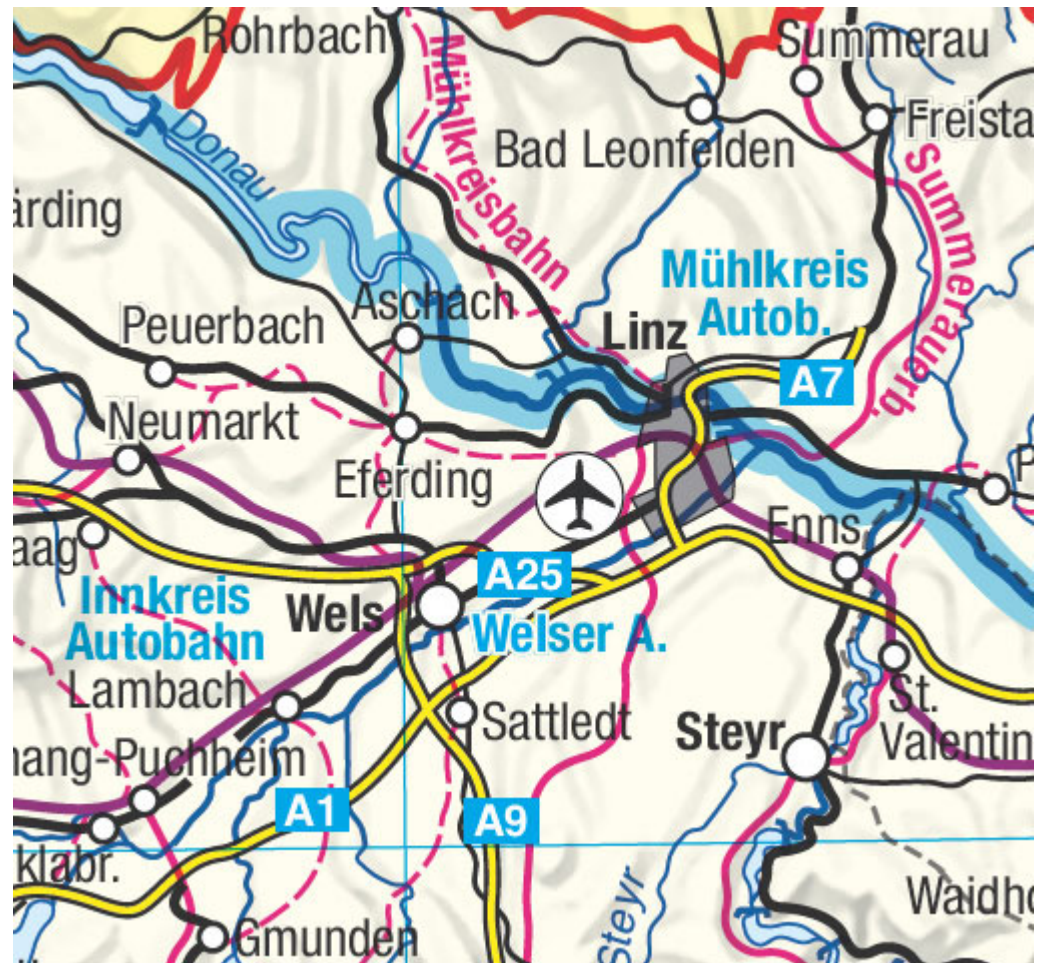
landscapes



Names on thematic maps

Example:

Names of **highways** and **railways**



Types of names

- independent names: not connected with a sign
- Attributive names: connected with a sign



Second decision

Which form of a name shall be used?

Large-scale: mainly for orientation -> names as used in the field

Small-scale: mainly for information -> different questions by a user, different names

Historical: name during a given time period

Geographical: today's name as used in geographical literature

Touristical: today's name as used locally

Economical: today's name as used in business language

Political: official names

Educational: different names as used in the home country of the students, in history, literature, science or oral tradition

Show all diacritical signs! -> Problem with some cartographic text fonts (you need UNICODE)

Geographical names for education

- *Regulations by the country's political authorities -> e.g. ministry of education*
No official regulations in Austria for objects outside of Austria
- *Recommendations of scientific boards*
Recommendations of the Austrian Working Group on Geographical Names (AKO), published in 1994, currently under revision
- *Recommendations by the United Nations*
only general guidelines for educational purposes
- *Other recommendations*
e.g. list of country names by the ministry of foreign affairs

Recommendations of the AKO

- Rules which national languages should be used in each country
- Rules how to romanize non-Latin alphabets
- List of names which should be given in their German form (exonyms)
 - exonyms in use at first position, endonyms in parentheses
 - some historical exonyms at second position in square brackets
 - The lists show the maximum of exonyms to be used. All other names should be given in their endonym form.

These recommendations have been implemented in the Austrian school atlases.

At the moment they are under revision due to changes in the use of exonyms, romanization rules and official languages during the last 10 years.

Third decision

Which names can be placed on the map?

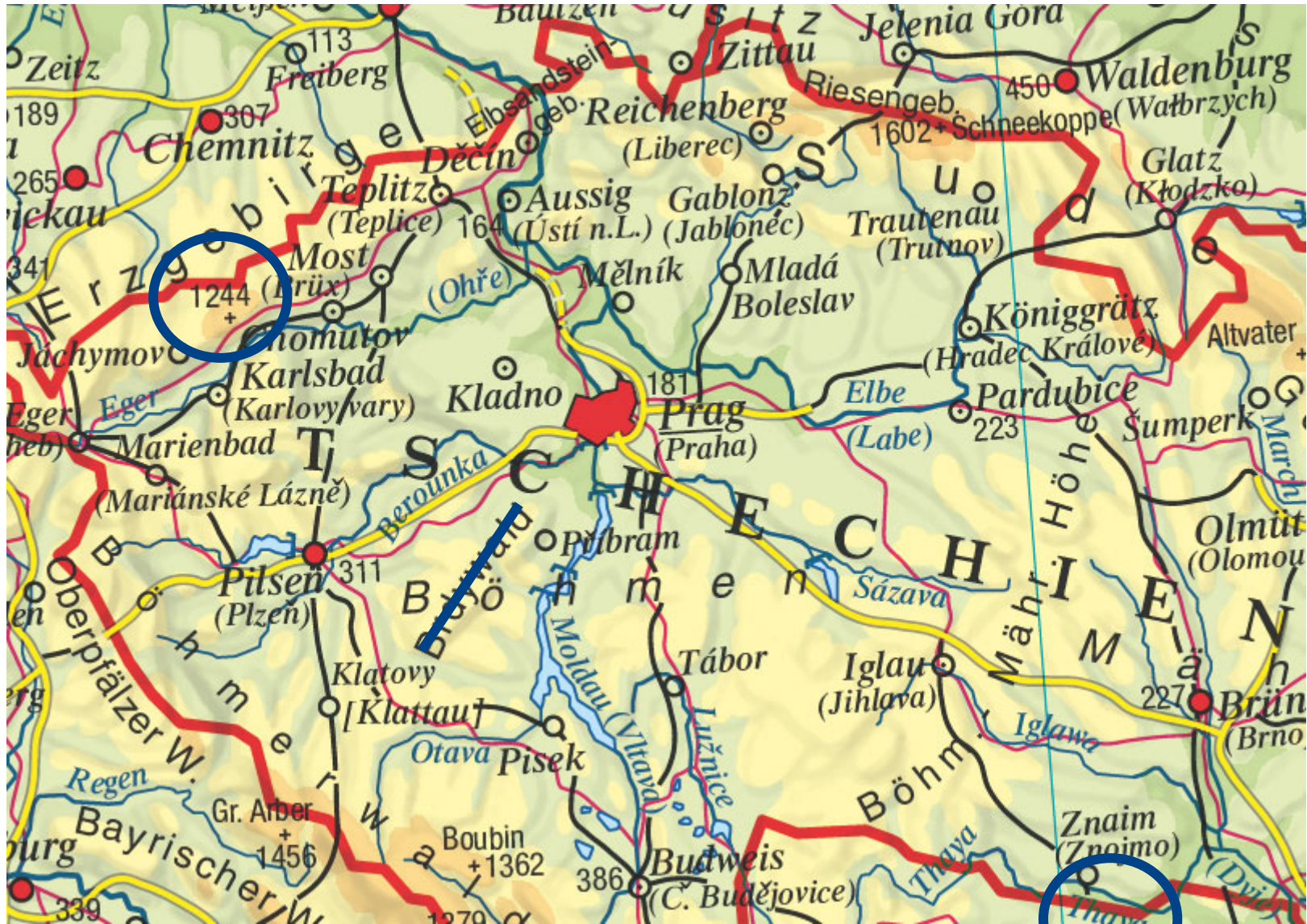
2 problems:

- a) Space is very limited on a small-scale map
 - b) Too many names will distract from the map theme
- > part of map generalization*

1) Name can be removed without removing the object:

- *Independent names*
- *Repeated names (rivers, oceans)*
- *Names of some object groups (mountains, rivers, lakes)*
- *Endonym between parentheses*

2) If name is removed object must be removed, too.



Forth decision

- *Where shall a name be placed?*

Point symbols

Line symbols

Area symbols

Point symbols

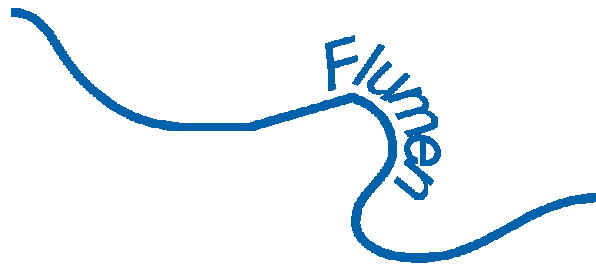
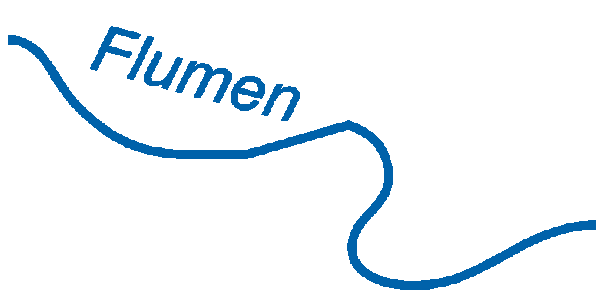
- Nearest to the symbol



Line symbols

- Following the form of the line

NO:



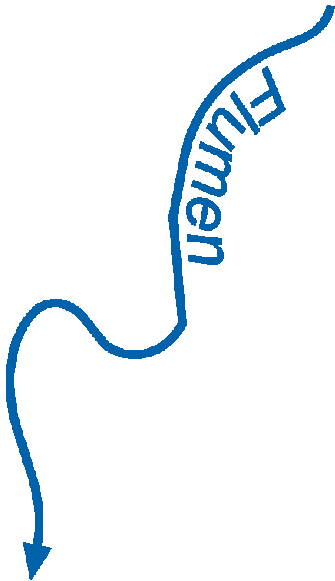
YES:



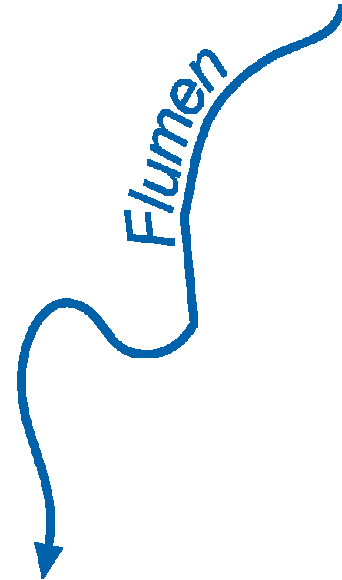
Line symbols

- Do not rotate the name more than 90°
- Reading direction is more important than flow direction

NO:

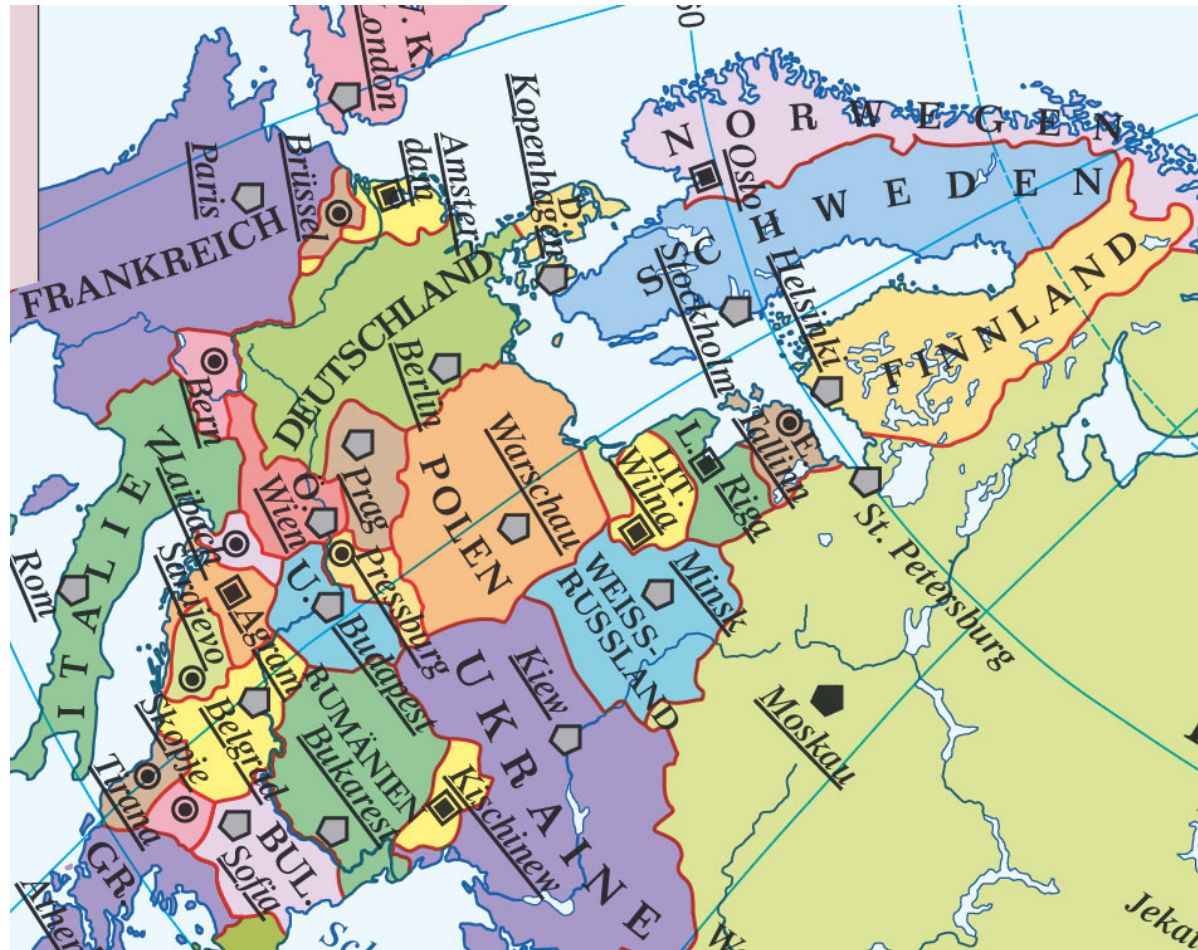


YES:



Area symbols – closed polygons

- Larger objects: name inside the polygon
- Smaller objects (e.g. lakes): name outside the polygon
- If inside then space the name horizontally to cover the larger part of the area



Area names without clear boundaries

- Name should denote the approximate extent of the object
- Problem: Where are the boundaries? -> sometimes different definitions and opinions, e.g. „Europe“, „Kurdistan“, „Ungarisches Tiefland“



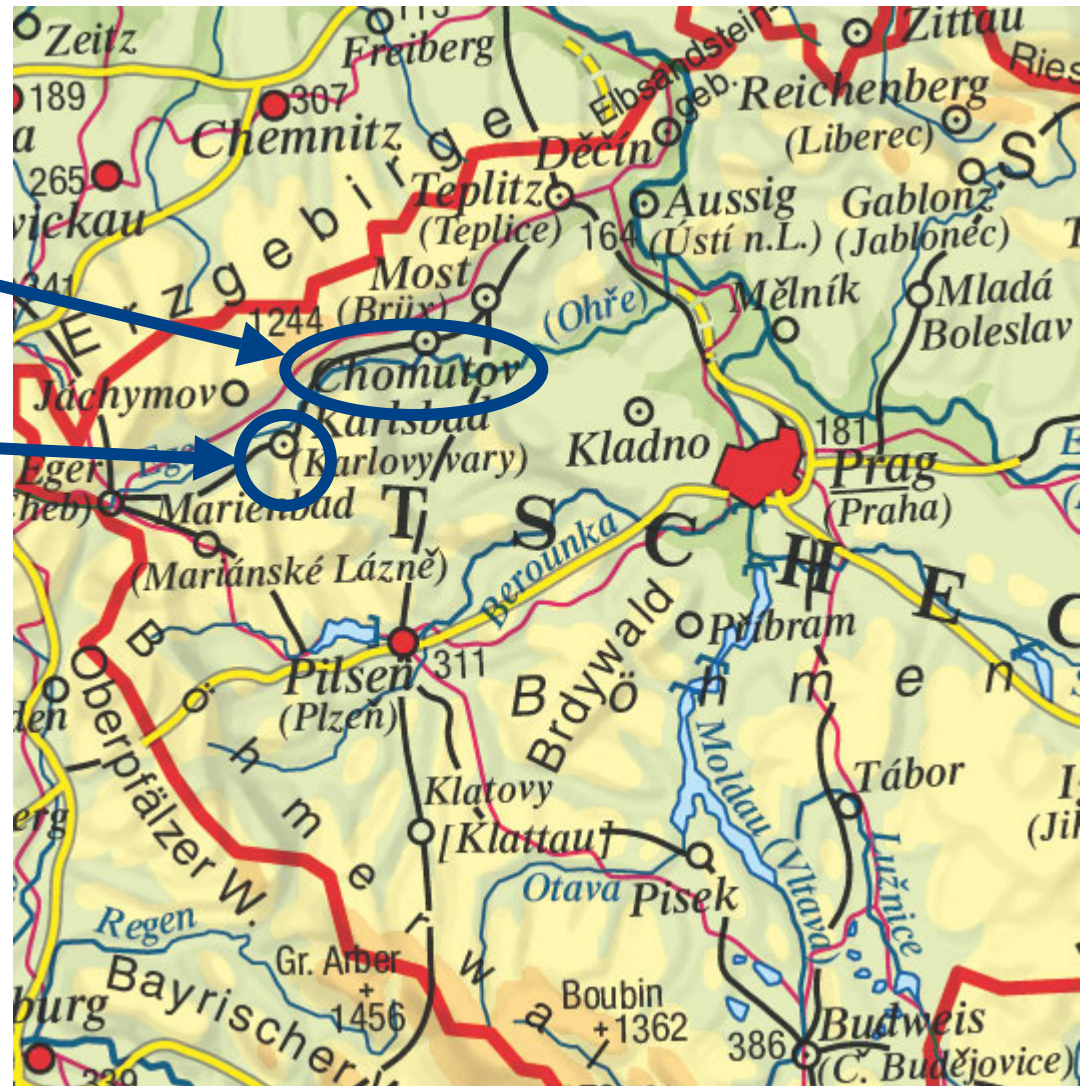
Fifth decision

- *How shall a name be placed?*

Interrupt lines in the same or a similar colour!

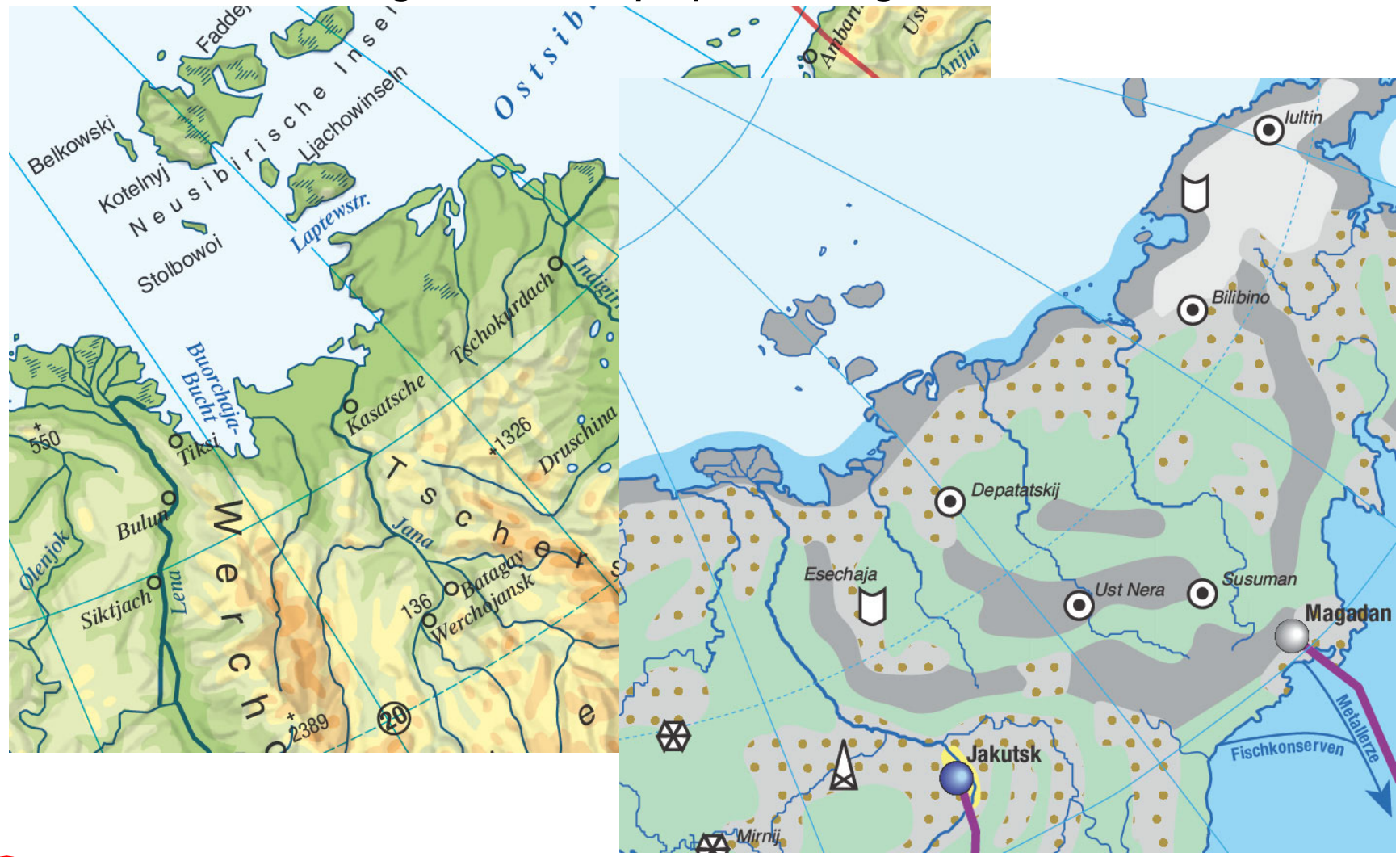
The name may not overlap or touch symbols in the same colour!

Use different fonts and sizes!



Fifth decision

- *Parallel to the grid or the paper margin?*



Names placement

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Fifth decision

- *Parallel to the grid or the paper margin?*

<i>Grid</i>	<i>Paper margin</i>
More laborious to produce	Easier to produce
Names can be much rotated	Clear reading direction
Better feeling of the projection	Projection is not supported visually
You can rotate the map or change the projection (at least slightly) without redoing the names placement	You have to redo the positioning if you rotate the map or change the projection

Automated names placement

- No standard tools available for advanced graphical software
- Many problems if you use a lot of names of different types in a map
- You have to shift many positions after automatically placing the names
- Problems with names along lines and area objects
- Spacing?
- Helpful if you build a new map from a names database which includes name, object type and coordinates